

Title V
AIR QUALITY PERMIT
Issued under 401 KAR 52:020

John E. Hornback, Director
Division for Air Quality

Revised 1/16/2001

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on February 9, 2001, the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any emission units without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Units: **01 - 03 (501F-TB-1, 501F-TB-2, & 501F-TB-3)**

**Three Natural Gas-Fired
Simple Cycle
Combustion Turbines**

Description:

1,790 MMBTU/hr maximum rated heat input capacity, each, 178 MW rated capacity output, each. Mitsubishi 501F gas-fired simple cycle combustion turbines equipped with dry low NO_x combustors.

Construction commenced: Proposed April 2001 (Start-Up June 2002)

Applicable Regulations:

Regulation 401 KAR 60:005, Standards of Performance for New Stationary Sources (NSPS), incorporating by reference 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, for emissions unit with a heat input at peak load equal to or greater than 10 MMBTU/hour for which construction commenced after October 3, 1977.

Non Applicable Regulation:

Regulation 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD), because facility emissions of criteria pollutants are limited to 245 tons per year.

1. Operating Limitations:

- a) The permittee shall not operate any combustion turbine below 70 percent load, except during periods of startup, shutdown, and malfunction. [Self-imposed restriction which precludes Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality].
- b) Natural gas shall be the sole fuel fired in the turbines. [Self-imposed restriction which precludes Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality].
- c) Startup shall be defined as going from 0 percent load up to or above 70 percent load and shutdown means going from operating load down to 0 percent load.
- d) Elapsed time during each startup or shutdown for each combustion turbine shall not exceed two (2) hours.
- e) Each combustion turbine shall not start up or shut down more than 200 times per year.

2. Emission Limitations:

- a) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60:332, and to preclude 401 KAR 51:017, nitrogen oxides emission level in the exhaust gas shall not exceed 32 ppm by volume at 15 percent oxygen, on a dry basis, and based on a three-hour rolling average, except during periods startup, shutdown, and malfunction. The ppm level of nitrogen oxides (at ISO standard conditions) shall be demonstrated by stack test, and measured with the use of a continuous emission monitor (CEM).

SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60:333, and to preclude 401 KAR 51:017, the fuel sulfur content due to the firing of pipeline quality natural gas shall not exceed 2 grain sulfur/100 SCF gas.

2. Emission Limitations continued:

c) To preclude Regulation 401 KAR 51:017, carbon monoxide emission level in the exhaust gas shall not exceed 25 ppm by volume at 15 percent oxygen, on a dry basis, and based on a three-hour rolling average, except during periods of startup, shutdown, and malfunction. The ppm level of carbon monoxide (at ISO standard conditions) shall be demonstrated by stack test, and measured with the use of a continuous monitor (CEM).

d) See Section D for source-wide emission limitations.

3. Testing Requirements:

a) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60.335 (b), in conducting performance tests required by 40 CFR 60.8, the owner or operator shall use as test methods and procedures the test methods in Appendix A of Part 60 or other methods or procedures as specified in 40 CFR 60.335, except as provided for in 40 CFR 60.8(b).

b) Pursuant to Regulation 401 KAR 50:045, the owner or operator shall conduct an initial performance test for nitrogen oxides, sulfur dioxide, and carbon monoxide, with use of a reference test method approved by the Division.

c) See General Conditions G (d)(5) and G (d)(6).

4. Specific Monitoring Requirements:

a) Pursuant to Regulation 401 KAR 52:030, Section 10, and 401 KAR 52:060, Acid Rain, incorporating 40 CFR 75, the permittee shall install, calibrate, maintain, and operate the nitrogen oxides Continuous Emissions Monitor (CEM) in accordance with manufacturer's instructions. The nitrogen oxides CEM shall be used as the indicator of continuous compliance with the nitrogen oxides emission limit. Excluding the startup and shut down periods, if any 3-hour rolling average exceeds the nitrogen oxides emission limitation, the permittee shall initiate an investigation of the cause of the exceedance and complete necessary control device/process/CEM repairs or take corrective action as soon as practicable.

b) The nitrogen oxides CEM shall be used in lieu of the water to fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1). The calibration of the water to fuel monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the nitrogen oxides CEM.

SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements continued:

- c) A CEM system for measuring oxygen levels shall be installed, calibrated, maintained, and operated in accordance with manufacturer's instructions.
- d) The owner or operator shall comply with all of the monitoring requirements of 40 CFR 75.
- e) Pursuant to 401 KAR 52:030, Section 10, the permittee shall monitor the fuel consumption each month and the hours of operation for each emission unit.
- f) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60.334(b), the owner or operator of any stationary turbine shall monitor sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as specified in 40 CFR 60.334(b)(1) and (2). (Custom fuel monitoring schedule required) If pipeline natural gas is being used, vendor certification of sulfur content shall be accepted as fulfilling this requirement.
- g) Pursuant to Regulation 401 KAR 52:030, Section 10, to meet the periodic monitoring requirement for carbon monoxide the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 3-hour rolling average carbon monoxide value exceeds the permit limit, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary process or CEM repairs or take corrective action as soon as practicable.
- h) Pursuant to Regulation 401 KAR 60:005 incorporating 40 CFR 60, The following are included:
 - 1. Pursuant to 40 CFR 60.13(b), the continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting the initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device(s).
 - 2. Pursuant to 40 CFR 60.13(c), the owner or operator of an emissions unit shall conduct a performance evaluation of the continuous monitoring system during any performance test or within 30 days thereafter, in accordance with the applicable performance specification in 40 CFR 60 Appendix B, for nitrogen oxides or carbon monoxide. Performance evaluations of CEM systems shall be conducted at other times as required.

SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements continued:

3. Pursuant to 40 CFR 60.13(d)(1), the owner(s) and operator(s) of all continuous monitoring systems shall perform appropriate calibration checks and zero and span adjustments in accordance with a written procedure at least once daily, in accordance with requirements specified in 40 CFR 60.13(d)(1).

4. Pursuant to 40 CFR 60.13(e), except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements which involves one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period.

5. Pursuant to 40 CFR 60.13(f), all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the emissions unit are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of 40 CFR 60 Appendix B shall be used.

6. Pursuant to 40 CFR 60.13(h), for the continuous monitoring systems the owner(s) or operator(s) shall reduce all data to one-hour averages. The one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent oxygen). All excess emissions shall be converted into units of the applicable standard using the applicable conversion procedures specified in Subpart GG. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used to specify the applicable emission standard.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- a) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the gas turbines shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.
- b) Records, including those documenting the results of each compliance test and all other records and reports required by this permit, shall be maintained for five (5) years pursuant to Regulation 401 KAR 52:030, Section 10.
- c) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions unit, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.
- d) The permittee shall maintain a weekly log of all sulfur content measurements or other documents as required in an approved custom fuel sulfur monitoring plan for the gaseous fuel.

6. Specific Reporting Requirements:

- a) Pursuant to Regulation 401 KAR 59:005, Section 3, minimum data requirements as follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:
 - 1) The magnitude of the excess emissions computed in accordance with Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - 2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the emissions unit. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements (Continued):

- 3) The date and time identifying each period during which a continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- 4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- b) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60.334 (c), for the reports regarding nitrogen oxides excess emissions (in lieu of those based on the water to fuel ratio monitoring) periods of excess emissions are defined as follows: Any three-hour period during which the average nitrogen oxides emission level as measured by the continuous monitoring system falls above the emission limitation specified in Subsection 2, with which the permittee demonstrates compliance by the performance test required in 40 CFR 60.8. These periods of excess emissions shall be reported quarterly.
- c) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60.334(c), each report of nitrogen oxides excess emissions shall include the average nitrogen oxides emission level from the CEM equipment.
- d) Pursuant to Regulation 401 KAR 60:005, incorporating 40 CFR 60.334(c), excess emissions of sulfur dioxide are defined as any daily period (or as otherwise required in an approved custom fuel sulfur monitoring plan) during which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in Subsection 2, Emission Limitations. These periods of excess emissions shall be reported quarterly.

7. Specific Control Equipment Operating Conditions:

- a) The dry low nitrogen oxides combustors shall be operated at all times to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) See Section E for further requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Natural Gas Heater 9 mmBTU/hr for fuel system (979 hours per year operation)	NA
2. Emergency fire water pump, 500 hp, diesel-fired (52 hours per year operation)	NA
3. Fugitive emissions from natural gas fuel handling system	NA

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. Nitrogen oxides, sulfur dioxide, and carbon monoxide emissions, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
2. Compliance with any annual emissions, operating, or process limitations imposed pursuant to Regulation 401 KAR 52:030, Section 10, and contained in this permit, shall be based on emissions and operation for any twelve (12) consecutive months.
3. Gas Combustion Turbines (emission units 01-03) and Gas Heater
Pursuant to Regulation 401 KAR 52:030, Section 10, and to preclude Regulation 401 KAR 51:017, potential emissions of nitrogen oxides (NO_x), and carbon monoxide (CO) from the combustion turbines and the natural gas-fired heater shall not exceed 245 tons per year, for each pollutant, during any consecutive twelve (12) month period. The permittee shall assure compliance with these limitations by use of continuous emission monitoring (CEMs) for the combustion turbines and calculations for the natural gas heaters with emission factors provided in Appendix A of the application. The permittee shall track and maintain a monthly total and a twelve consecutive month summary of nitrogen oxides and carbon monoxide emissions to assure compliance with this limitation. [Equations for natural gas heater based on Appendix B: (1) For nitrogen oxides: $\text{lbs/hour} = \text{rated capacity in MMBTU/hour} \times 0.10 \text{ lb/MMBTU}$. $\text{Tons/month} = \text{lbs/hour nitrogen oxides} \times (\text{hours of operation/month}) / (2000 \text{ lb/Ton})$. (2) For carbon monoxide: $\text{lbs/hour} = \text{rated capacity in MMBTU/hour} \times 0.050 \text{ lb/MMBTU}$. $\text{Tons/month} = \text{lbs/hour carbon monoxide} \times (\text{hours of operation/month}) / 2000 \text{ lb/Ton}$.]
4. The maximum operating time for the fire-water pump engine shall not exceed 52 hours in any consecutive twelve months.
5. Compliance with the annual nitrogen oxides emission limitation shall be determined by adding the emissions from the turbines and the gas heater for any twelve (12) consecutive months.
6. Compliance with the annual carbon monoxide emission limitation shall be determined by adding the emissions from the turbines and the gas heater for any twelve (12) consecutive months.
7. Records of tons of NO_x and CO emissions emitted from the source in any consecutive twelve (12) month period shall be reported quarterly to the Kentucky Division for Air Quality's Paducah Regional Office.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable,

maintain and operate any emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in 401 KAR
2. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in 401 KAR 52:030 Section 10, records of all required monitoring data, support information (including calibrations, maintenance records, and original strip chart recordings), and reports required by the Division for Air Quality shall be retained by the permittee for a period of five years. In accordance with Section 1a (7) of the materials incorporated by reference in 401 KAR 52:030 Section 10 and 401 KAR 52:030 Section 3(1)(f)1a, these records shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.
3. In accordance with the requirements of 401KAR 52:030 Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Access and copy any records required by this permit, enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation; and
 - b. Sample or monitor substances or parameters that affect compliance with the permit or any applicable requirements.Reasonable times include all hours of operation, normal office hours, and during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due prior to January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. Pursuant to Section 1b V(3) and (4) of the material incorporated by reference in 401 KAR 52:030 Section 10, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.6 above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.5.
9. Pursuant to 401KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Paducah Regional Office in accordance with the following requirements:
 - a. Identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status regarding each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent; and
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the year covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

**Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah, KY 42003-0823**

**U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960**

**Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601**

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee. If a KEIS emission report is not mailed to the permittee, comply with all other emission reporting requirements in this permit.
11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by 401KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.
12. The cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
- (1) The owner or operator shall submit to the cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
 - (a) The size and location of both the original and replacement units; and
 - (b) Any resulting change in emissions;
 - (2) The PTE of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
 - (3) The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
 - (4) The replacement unit shall comply with all applicable requirements; and
 - (5) The source shall notify Regional office of all shutdowns and start-ups.
 - (6) (5) Within six (6) months after installing the replacement unit, the owner or operator shall:
 - (a) Re-install the original unit; or
 - (b) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit. [Section 1a (2) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
2. Notification by the permittee of a planned change or anticipated noncompliance, or filing of a request for any permit revision, reissuance, or rescission shall not stay any permit condition. [Section 1a (5) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
3. Pursuant to Section 1a (2) of the materials incorporated by reference in 401 KAR 52:030 Section 10, 401 KAR 52:030 Section 7(3), and 401 KAR 50:060 Section 2, this permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401KAR 52:030 Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish upon request information requested by the division to determine compliance with the permit or to determine if cause exists for modifying, revoking and reissuing, or terminating the permit [Sections 1a (6) and (7) of the materials incorporated by reference in 401 KAR 52:030 Section 10]

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority. [401 KAR 52:030 Section 7(1)]
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Section 1a (11) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Section 1a (3) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Section 1a (12)(b) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6). [Section 1a (9) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:030 Section 11(3)]
11. This permit does not convey property rights or exclusive privileges. [Section 1a (8) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

SECTION G - GENERAL PROVISIONS (CONTINUED)

15. Permit Shield – A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (a) Applicable requirements that are included and specifically identified in this permit:
and
 - (b) Non-applicable requirements expressly identified in this permit.
16. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the division. [401 KAR 52:030 Section 3(1)(c)]
17. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]
18. All previously issued construction and operating permits are hereby subsumed into this permit.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:030 Section 12]

(c) Permit Revisions

1. Minor permit revision procedures specified in 401 KAR 52:030 Section 14 (3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14 (2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following completion and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
3. Affected facilities that are not completed in accordance with 401 KAR 52:030 Section 3(2) shall lose the construction and operation authorization granted in this permit. Accordingly:
 - a. Construction shall commence no later than 18 months after the date of issue of this permit;
 - b. Construction shall not begin and discontinue for 18 months or more unless the construction authorized is approved as a phased project;
 - c. Construction shall be completed within 18 months of the scheduled completion date; and
 - d. Each phase of a phased construction project shall commence construction within 18 months of the projected and approved commencement date.Upon a written request, the division may extend these time periods if the source shows good cause.
4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must be conducted in accordance with General Provision G(d)6 of this permit and the permittee must also furnish a written report of the results of such performance tests to the Division's Frankfort Central Office.

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the

required performance test, the permittee shall complete a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The permittee shall comply with all requirements and conditions of the Title IV Acid Rain Permit(s) issued for this source.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two (2) working days of the time when emission limitations were exceeded due to the emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
2. Notification of the division does not relieve the source of any other local, state or federal notification requirements.
3. Emergency conditions listed in General Provision G(f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:030 Section 23(3)]
4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:030 Section 23(2)]

SECTION G - GENERAL PROVISIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk

Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center

P.O. Box 3346

Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information by the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J -ACID RAIN PERMIT

Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

PHASE II ACID RAIN PERMIT

Plant Name:	Calvert City Power I, LLC	
Plant Location:	Needmore Road, Calvert City, Kentucky 42029	
Owner:	Calvert City Power I, LLC	
Mailing Address:	1001 N 19 th Street, 20th Floor, Arlington, Virginia 222029	
Region:	Paducah	County: Marshall
Effective Date	From:	To:

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 3) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application.
- 5) Summary of Actions

1) Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality issues this permit pursuant to Regulations 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

Plant Name: Calvert City Power I, LLC
Affected Unit: 1 (501F - TB - 1)

2) SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2000	2001	2002	2003	2004
Tables 2, 3 or 4 of 40 CFR Part 73	0*	0*	0*	0*	0*

NO _x Requirements	
NO_x Limits	N/A**

* For newly constructed units there are no SO₂ allowances allocations per USEPA Acid Rain Program.

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76.

PERMIT (Conditions)

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Plant Name:	Calvert City Power I, LLC
Affected Unit:	2 (501F - TB -2)

SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2000	2001	2002	2003	2004
Tables 2, 3 or 4 of 40 CFR Part 73	0*	0*	0*	0*	0*

NO _x Requirements	
NO_x Limits	N/A**

* For newly constructed units there are no SO₂ allowances allocations per USEPA Acid Rain Program.

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76.

PERMIT (Conditions)

Plant Name:	Calvert City Power I, LLC

Affected Unit: 3 (501F - TB – 3)

SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2000	2001	2002	2003	2004
Tables 2, 3 or 4 of 40 CFR Part 73	0*	0*	0*	0*	0*

NO_x Requirements

NO_x Limits	N/A**
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* For newly constructed units there are no SO₂ allowances allocations per USEPA Acid Rain Program.

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76.

PERMIT (Conditions)

3. Comments, Notes, and Justifications:

The three (3) combustion turbines, units 1, 2, and 3 will be constructed after the SO₂ allocation date; therefore these units will have no SO₂ allowances allocated by U.S. EPA and must obtain offsets.

The three (3) combustion turbines, units 1, 2, and 3 do not have applicable NO_x limits set by 40 CFR part 76.

4. Permit Application: Attached

The Phase II Permit Application is a part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

5. Summary of Actions:

Present Action:

1. Draft Title V with Section J Acid Rain Permit has been advertised for public comment.

